

42P16725

Remarks

Reconsideration of this application is requested. By this response to the Office Action dated February 21, 2006, claims 1, 3, 5, 8-9 and 15 have been amended. Claims 2, 4, 6, 7, 10-14 and 18 are canceled, either per this response or a previous response. Claims 1, 3, 5, 8-9 and 15-17 remain in the application. A listing of these claims and the actions taken is included in this amendment.

Response to the 35 U.S.C. §102(e) Rejection

The Office Action rejected claims 1-6, 8-10 and 15-18 under 35 U.S.C. §102(e) as being anticipated by Lindenmeier (U.S. patent 6,768,457).

Claims 1-6

Applicant's amended claim 1 recites partitioning multiple antennas into a first tier and a second tier, the first tier having one antenna selected as a receiving antenna and non-selected antenna in the second tier. A framed digital signal having preamble symbols is received in a mobile device. The non-selected antenna in the second tier are sequentially switched to process portions of the preamble symbols in a receiver of the mobile device to evaluate a signal quality of signals received by the non-selected antenna. The receiving antenna in the first tier is replaced with an antenna in the second tier that has the signal quality higher than the one antenna in the first tier.

Support for the modifications to Applicant's claim language may be found in the original claims and in the specification at least on page 6, lines 1-18.

Lindenmeier teaches in the figures a receiver having a plurality of antennas switched on so that individual antennas can be evaluated, one after the other, with respect to level. A reception level testing device 25 shown in Fig. 1a is used to determine the most favorable reception signal.

Lindenmeier states that preamble signals are transmitted with burst data to a diversity receiver that measures a reception level. Lindenmeier does not provide any algorithm or method to separate the multiple antennas into

42P16725

separate groups to aid in evaluating the multiple antennas. Instead, Lindenmeier uses preamble symbols to reevaluate all of the antennas and provides a reception level testing device 25 to select a desired antenna.

In contrast to Lindenmeier, Applicant's claim 1 recites partitioning multiple antennas into a first tier and a second tier. The antennas in the second tier are sequentially switched to process portions of the preamble symbols in a receiver of the mobile device to evaluate a signal quality of signals received by the non-selected antenna. Whereas Lindenmeier uses preamble signals to determine a level for signals through all antenna, Applicant's claim 1 partitions multiple antennas into a first tier and a second tier and determines signal quality in the non-selected antenna in the second tier. At least this feature of Applicant's claim 1 is not taught or suggested by Lindenmeier. Accordingly, the prior art reference of Lindenmeier is deficient in teaching Applicant's claimed invention as recited in claim 1. Lindenmeier cannot anticipate Applicant's claim 1 and the rejection under 35 U.S.C. §102(e) as being anticipated by Lindenmeier should be removed.

Claims 3 and 5 depend from base claim 1 and are believed allowable over the art of record for at least the same reasons as claim 1. Claims 2 and 4 have been canceled per this response.

Claims 8-10

Applicant's amended claim 8 recites, among other things, partitioning a first antenna in a first tier and second and third antennas in a second tier. The claim further recites selecting the second or third antenna having a higher signal quality than the signal quality of the first antenna to replace the first antenna in the first tier as the receiving antenna for the mobile device.

As already highlighted with regards to claim 1, Applicant's claim 8 recites partitioning antenna into first and second tiers. This feature is not taught or suggested by Lindenmeier, and therefore, that prior art reference cannot anticipate Applicant's claim 8. Accordingly, the rejection of claim 8 under 35 U.S.C. §102(e) as being anticipated by Lindenmeier should be withdrawn.

42P16725

Claim 9 depends directly from base claim 8 and is believed allowable based on claim 8 being allowable. Claim 10 has been canceled per this response.

Claims 15-18

Applicant's claim 15 recites a Network Interface Card (NIC) having at least three antennas coupled through a switch to an input of a single receiver in a mobile device. A processor is coupled to the single receiver to compare quadrature signals that are demodulated from preamble symbols sequentially received by the at least three antennas, wherein the processor selects an antenna that provides a highest quality signal as a receiving antenna in a first tier and places the second and third antennas in a second tier.

Again, Lindenmeier does not teach using preamble symbols received by multiple antennas to select an antenna that provides a highest quality signal and placing that antenna in a first tier, while non-selected antenna are placed in a second tier. The claimed features of Applicant's claim 15 are not found in the prior art reference of Lindenmeier. Therefore, that reference does not make Applicant's claim 15 unpatentable.

Claims 16-17 depend directly from base claim 15 and are believed allowable based on claim 15 being allowable. Claim 18 has been canceled per this response.

Conclusion

The foregoing is submitted as a full and complete response to the Office Action, and reconsideration of the rejections is requested. It is submitted that claims 1, 3, 5, 8-9 and 15-17 are in condition for allowance. Allowance of these claims is earnestly solicited.

Applicants herewith petition the Director of the United States Patent and Trademark Office to extend the time for response to the Office Action dated February 21, 2006, for 2 months. Please charge Deposit Account #50-0221 in the amount of \$450.00 for a two month extension. Should it be determined that an additional fee is due under 37 CFR §1.16 or 1.17, or any excess fee

42P16725

has been received, please charge that fee or credit the amount of overcharge to deposit account #50-0221.

If the Examiner believes that there are any informalities that can be corrected by an Examiner's amendment, a telephone call to the undersigned at (480) 715-5388 is respectfully solicited.

Respectfully submitted,
Qinghua Li

/Lanny L. Parker/
Lanny L. Parker
Patent Agent
Reg. No. 44,281

c/o Blakely, Sokoloff, Taylor & Zafman, LLP
12400 Wilshire Blvd., Seventh Floor
Los Angeles, CA 90025-1026
(503) 264-0967